

# SKYRAIDER

in action



Don Knecht



Aircraft Number 60  
squadron/signal publications

# **AD SKYRAIDER** **in action**

**by Jim Sullivan**  
**illustrated by Don Greer**



**Aircraft Number 60**  
**squadron/signal publications**



Lifting off, an AD-4 Skyraider of VF-54, heads for a target in North Korea, carrying a full load of bombs and napalm from the deck of the USS Essex on 3 March 1952. Skyraiders of Air Group Five (VA-55), flying from the USS Valley Forge, participated in the very first Naval Air attacks against North Korean targets on 3 July 1950.



This AD-4 (123827), has been restored to the markings worn during its active duty career. Pilot Dave Forest taxis the NAS Atlanta marked Skyraider during a Vallant Air Command Fly-In at Wilmington, N.C. on 12 April 1981. (Jim Sullivan)

**COPYRIGHT © 1983 SQUADRON/SIGNAL PUBLICATIONS, INC.**

1115 CROWLEY DRIVE, CARROLLTON, TEXAS 75011-5010

All rights reserved. No part of this publication may be reproduced, stored in retrieval system or transmitted in any form by any means electrical, mechanical, or otherwise without written permission of the publisher.

**ISBN 0-89747-144-X**

If you have any photographs of the aircraft, armor, soldiers or ships of any nation, particularly wartime snapshots, why not share them with us and help make Squadron/Signal's books all the more interesting and complete in the future. Any photograph sent to us will be copied and the original returned. The donor will be fully credited for any photos used. Please send them to: Squadron/Signal Publications, Inc., 1115 Crowley Dr., Carrollton, TX 75011-5010.

### **Dedication:**

This book is dedicated to the pilots and ground-support people who handled and maintained this powerful and most effective attack plane, the AD SKYRAIDER.

### **Acknowledgements**

The author would like to thank all the people who have provided material to help make this book possible:

Hal Andrews  
Dana Bell  
Roger Besecker  
Warren Bodie  
Peter Bowers  
Bill Curry  
Tom Curry  
Bob Esposito  
Don Fettes  
W.F. 'Fritz' Gemeinhardt  
Richard Hill  
Don Jay  
Bill Larkins  
Peter Mancus  
Paul McDaniel

David Moriarty  
Walt Ohlrich  
Harold Reutebuch  
Fred Roos  
Doug Slowiak  
Flight Leader Russell-Smith  
Bob Stuckey  
Norm Taylor  
Ira Ward  
John Woods  
The National Archives  
USMC History Center  
The National Air and Space Museum  
of the Smithsonian Institution

An AD-4 (123841) of VA-115 banks gently starboard. Belonging to Air Group Eleven, this Skyraider later saw Korean combat from the deck of USS Philippine Sea. 10 June 1950 (National Archives)



# INTRODUCTION

As a replacement for the obsolete SBD Dauntless, Douglas Aircraft Company at El Segundo developed the XSB2D Destroyer, a single engine two place dive bomber with the secondary capability of torpedo attack. Equipped with a tricycle landing gear, and inverted gull wings similar to the F4U Corsair, the Destroyer was armed with two 50 caliber machine guns mounted in each wing and three 50s mounted in remotely controlled aft turrets. Maximum bomb load was 4000 lbs., which was carried internally.

However, while the two place Destroyer was under development, the Navy changed it's requirements from a two place SB (Scout Divebomber) to a single place BT (Divebomber Torpedo Attack). Douglas quickly went to work redesigning the XSB2D into a single seat aircraft under the designation XBTD-1. Unfortunately the inverted gull wing design proved to be impractical and the XBTD-1 project was cancelled in June of 1944.

The Douglas staff immediately went to work on a new design, after having literally created drawings overnight and gotten approval from the Navy the next day. Under the designation XBT2D-1, Douglas was awarded a contract for 15 experimental machines. However, other manufacturers were already at work on competing designs, and Douglas had to meet the same time schedule as those already at work:

Martin	XBTM	powered by a 3000 hp Pratt & Whitney R-4360 engine.
Curtiss	XBTC	an updated version of the SB2C Helldiver featuring an aft fuselage radar compartment, the fore-runner of the all-weather concept.
Kaiser Fleetwings	XBTK	a small light attack bomber powered by a Pratt & Whitney R-2800 engine.
Boeing	XFBB	powered by a 3000 hp Pratt & Whitney R-4360 turning a six bladed contra rotating propeller. An internal weapons bay could carry two 1600 lb. bombs and external racks could carry an additional pair of 1600 lb. bombs.

Setting an engineering design completion date of January 1945, Douglas immediately began designing a completely new aircraft to the new Navy requirements. To insure that the weight restriction of 16,120 lbs. were met, the design team targeted the design to come in at 15,370 lbs., 750 lbs. under the weight restriction.

The XSB2D Destroyer was designed as a replacement for the SBD Dauntless. A change in Navy requirements resulted the cancellation of this two place Scout Divebomber.



Martin XBTM-1 Mauler (85162), the second prototype, is in its natural Aluminum finish while undergoing testing at NATC Patuxent River. 19 July 1947. (via Peter Bowers)

Curtiss XBTC-1 (50881), the third prototype during flight testing near Columbus, Ohio, 1946. (via Hal Andrews)



Kaiser Fleetwings XBTK-1 (44313), the first prototype after flight testing at NATC Patuxent River, 8 August 1945. (via Peter Bowers)

Boeing XFBB-1 retained the older concept of an internal bomb bay for its bombs and torpedos. Powered by the Wasp Major engine, it could fly at 432 mph. 1944. (via Peter Bowers)





**XBT2D-1 (09085), the first prototype Dauntless II in natural Aluminum during Douglas factory flight tests on 13 June 1945. (National Archives)**

The Douglas "Dauntless II", as the new airplane was now called, was designed around the forthcoming 2500 hp Wright R-3350-24 powerplant. However, the new powerplant was proving more troublesome than expected and it was decided to install the Wright 2,300 hp R-3350-8 engine. Armed with a single 20mm cannon in each wing and three bomb racks, one on each wing and one on the fuselage centerline, the XBT2D-1 flew for the first time on 18 March 1945. Two weeks ahead of schedule.

The XBT2D-1 Dauntless II was delivered to Patuxent River Naval Test Center for evaluation on 7 April 1945. Reports from Naval test pilots were glowing, flight characteristics and performance were rated very good, and wave-off characteristics were excellent. Overall the XBT2D Dauntless II was considered to be the best divebomber ever tested at Patuxent River. One of the Naval requirements that the new divebomber exceeded, and one that impressed the evaluation people, was the XBT2D-1's simplicity of maintenance.

The wings were hydraulically folded, and the wheels, like the F4U Corsair, rotated and folded to the rear. The pilot was protected by armor plating in the cockpit area. Fuel capacity in the single internal fuel tank was 350 gallons, and provision was made for an additional external 150 gallon fuel tank to be mounted on the centerline.

On 5 May 1945, the Navy signed a letter of intent to purchase 598 Dauntless IIs, and while this order was cut to 277 aircraft after VJ Day, the XBT2D's competitors did not fair nearly as well. Only the Martin XBTM Mauler received a production order, which was reduced to 99 machines after VJ Day. The Curtiss XBT2C was kept only as a back-up, in case a problem developed with the Dauntless II; the small Kaiser Fleetwings XBTk was dropped from the competition after flight problems developed; and the Boeing XF8B was cancelled after VJ Day.

The continuation of the Douglas program was largely because of the BT2D's versatility and adaptability. Early in the program aircraft were assigned and modified to become prototypes for a variety of specialized roles:

- (P) Photographic
- (W) Airborne Early Warning
- (N) Night Attack
- (Q) Electronic Countermeasure

Of the original 25 XBT2D-1 prototypes built, nineteen were built in the basic Attack Bomber configuration; two airframes (09098/09099) were modified as XBT2D-1N Night Attack; one as XBT2D-1P (09096) Photo Reconnaissance model; one XBT2D-1Q (09109) all weather machine; one airframe was configured to a XBT2D-1W early warning flying radar



**XBT2D-1 (09100) prototype in glossy Sea Blue with White Modex and numbers. 1949 (via Bob Esposito)**



**XBT2D-1Q (09109), the only Electronic Countermeasures (ECM) prototype built, was radar equipped for all-weather flying conditions. The radar operator compartment was located within the fuselage just aft of the cockpit. 1948. (via Hal Andrews)**

XBT2D-1 (09094) was modified for a unique experiment. The standard pair of 20mm cannon was replaced by a pair of tubes capable of firing 5 inch rockets. Each wing internally carried six rounds of spin-stabilized rockets for ground attack. This system was tested at NOTS Inyokern, CA., during 1946-47, but was not incorporated into 'fleet' aircraft. 7 June 1948. (via Hal Andrews)

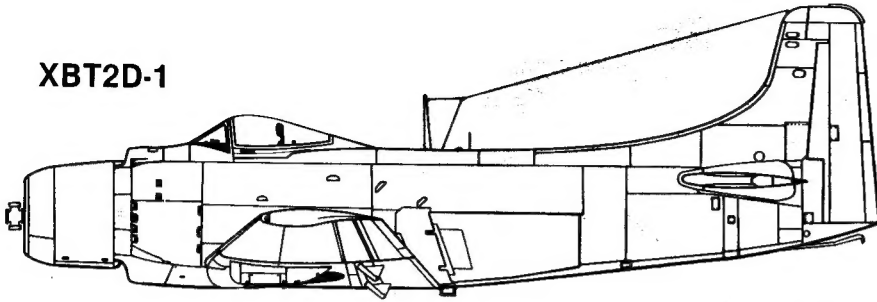


station; and the 25th prototype was designated XAD-2. Of the first 25 machines only the first four were powered by the Wright R-3350-8, the balance were powered by the more powerful Wright R-3350-24W.

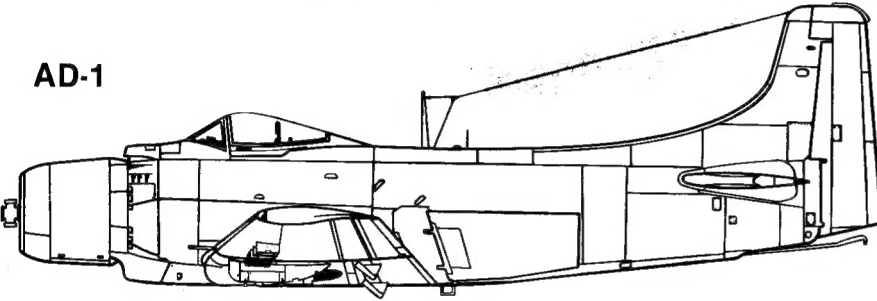
In February 1946, the BT2D Dauntless II was renamed the Skyraider, and in April when the Navy completely revised its aircraft role designation system, the BT2D Skyraider became the AD Skyraider.

# Development

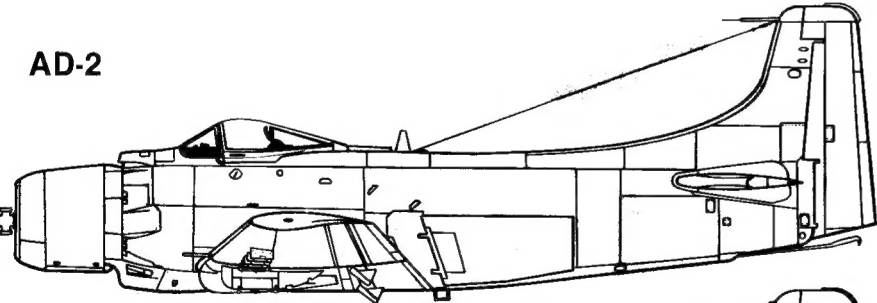
XBT2D-1



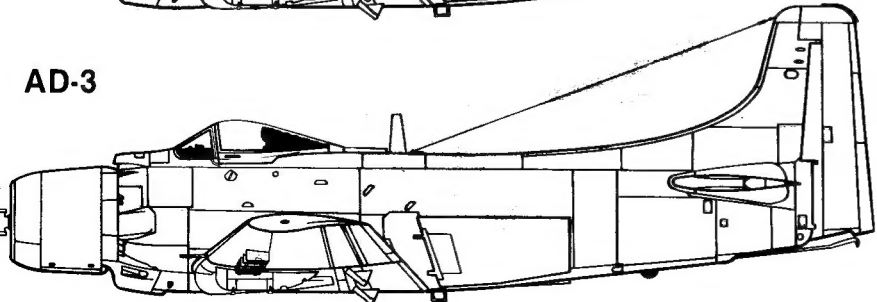
AD-1



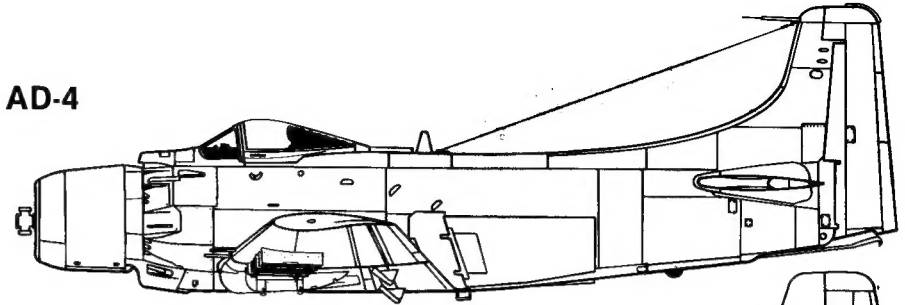
AD-2



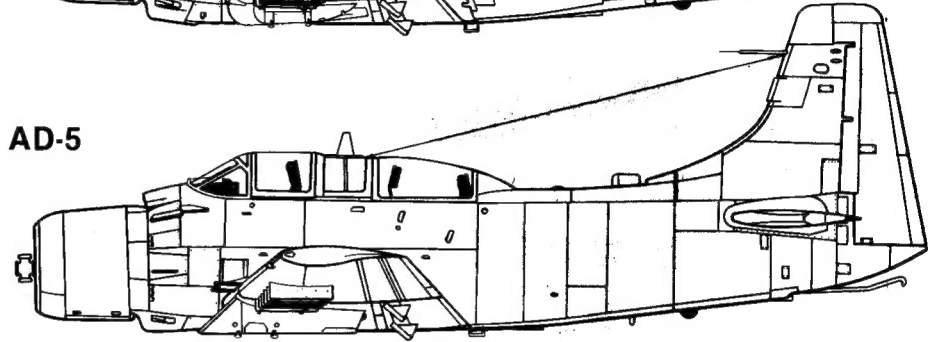
AD-3



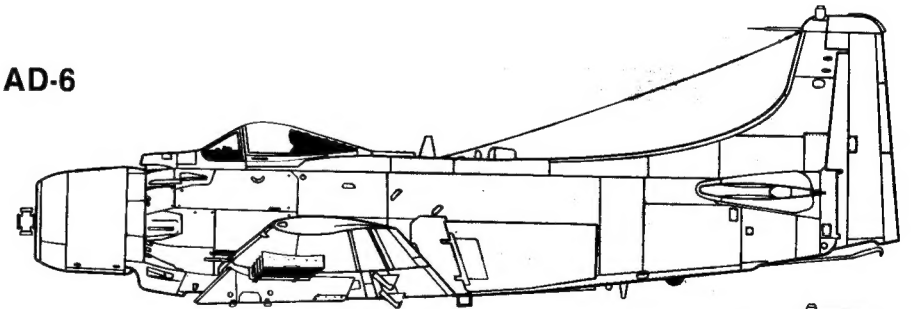
AD-4



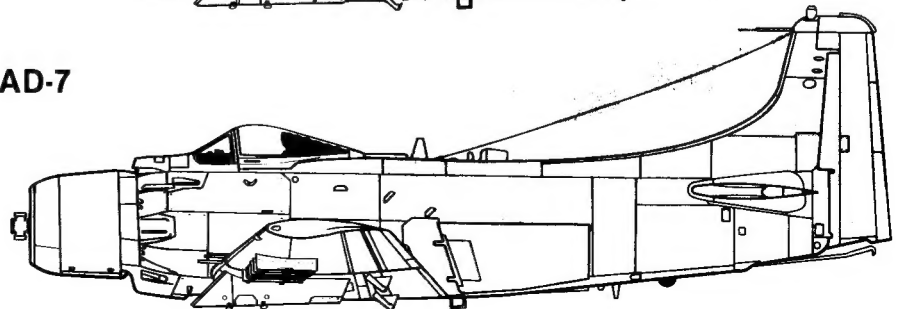
AD-5



AD-6



AD-7





## AD-1 Skyraider

The only changes suggested by the evaluation team at Patuxent River was additional heat and oxygen for the crew, and additional lighting in the cockpit and aft compartment. The AD-1 was at Fleet Air Headquarters, Alameda, California, undergoing service trials when, during further testing of the XBT2D-1, it was discovered that after repeated carrier landings, structural weaknesses developed that required strengthening in the areas of the landing gear, wing and tail assemblies. These modifications were quickly incorporated into the AD-1 series. Gross weight was 16,500 lbs. and the AD-1 was powered by a R-3350-24W engine turning a 13 ft. 8 in. four bladed prop. This combination produced 2500 hp. Armament was two 20mm cannons (one in each wing), with provisions for six Mark 9 rocket launchers on each outer wing panel, and two bomb racks capable of carrying up to 2000 lbs. each. Maximum speed was 310 knots and range was 1350 nautical miles. By the spring of 1947, US Navy squadrons on the East and West Coasts were receiving the AD-1. The AD-1 series was flown by both the Navy and Marines. By mid-1948, the AD-1 series had completed its production run. From 1947 until mid-1948, Douglas produced two hundred forty-two AD-1 Skyraiders.

### Variants

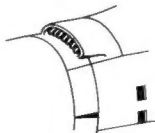
AD-1Q Electronic Countermeasures (ECM) aircraft. Carried a crew of two and a gross weight of 16,900 lbs., which was the result of the addition of a compartment within the fuselage, just aft of the fuel cell, for the radio countermeasures operator and his equipment. Included in the ECM equipment was an AN/APR-1 Search Receiver,

AD-1 (09162) from VA-3B during 1948 carrying the markings of USS Franklin D. Roosevelt. VA-3B and VA-4B, attached to CVA-42 on the FDR, were among the first operational squadrons to receive the Skyraider in April of 1947. (via Bob Esposito)

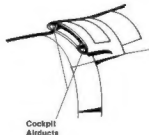
an AN/APA-11 Pulse Analyzer, an AN/APA-38 Panoramic Adapter, and a MX-356/A Window Dispenser. Besides the fuselage 'bumps' and antenna, the AD-1Q was easily identified by the ECM compartment windows and doors located on the fuselage sides just aft of the cockpit area. Thirty-five AD Skyraiders were delivered in the AD-1Q ECM configuration.

### Carburetor Intake

Early XBT2D



AD-1







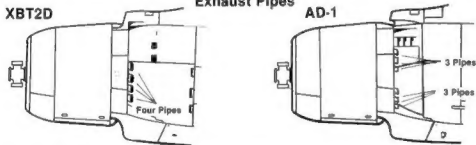
AD-1 (09283) of VA-64 launches from the starboard cat off the USS Coral Sea. Markings are White with the tip of the tail in Yellow. 14 September 1948. (National Archives)

(Below) AD-1 of VA-6B, has just landed and is folding its wings while taxiing forward aboard USS Coral Sea. The horseshoe marking on the cowlings is White. 20 May 1948. (National Archives)

XBT2D

Exhaust Pipes

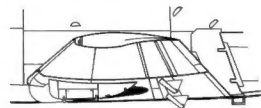
AD-1



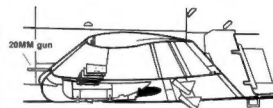
AD-1 (09114) of Air Training Unit-301. From this training squadron Naval aviators were assigned to Fleet units. 17 October 1952. (via Hal Andrews)



# Under Wing Attachment Points



XBT2D-1



AD-1



AD-1 (09204) of VA-20A based at NAS Alameda, CA, flying along the Pacific coastline near San Francisco. All markings are White on glossy Sea Blue. Note the flat finish forward of the windscreen. The gun muzzle covers are still in place protecting the 20mm cannon. 2 June 1947. (Bill Larkins)

AD-1 (09192) of VA-4B from the USS Franklin D. Roosevelt. The cowl marking is a Green knight on a White shield. The pilot's name, Ens. Bill Newell, is in White forward of the canopy. A standard Mark 12 one hundred-fifty gallon drop tank on the centerline and an AN/AP-4 pod on the wing rack. Wilmington, N.C. 1949 (Paul J. McDaniel)



(Below) AD-1 (09226) of VMAT-20, a Marine training unit based at MCAS El Toro, CA. Note the canvas cover on the wing folding mechanism and a Mark 12 one hundred-fifty gallon drop tank on the wing. 1953. (via Bill Larkins)

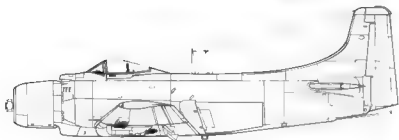




AD-1Q (08366) from VX-1, a weapons development squadron carries an AN/APG-4 radar pod under the port wing. The port window of the ECM operator's compartment can be seen between the White 10 and the national insignia. The ECM operator's entry hatch is on the starboard side. 6 January 1949. (National Archives)

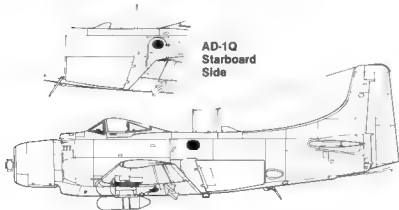
Factory fresh AD-1Q (09354) with an ECM pod beneath each wing. The AD-1Q carried a crew of two. El Segundo, CA. August 1947. (via Hal Andrews)

AD-1



AD-1Q  
Starboard  
Side

AD-1Q





AD-1Q (09350) of VC-35 with an ECM blister on the lower rear fuselage, and antennae on the bottom of the rear fuselage. Note the airscoop just aft of the radio mast. It was used to cool the ECM equipment. 1949. (via Bill Larkins)

# AD-2 Skyraider

Continued structural failure caused by hard carrier landings, despite the beefing up which had already taken place, continued to plague the AD-1. These problems were solved on the AD-2, with AD-1s being rebuilt to the new standards.

The AD-2 was a much revised and improved airplane. The new 3,020 hp R-3350-26W powerplant, capable of lifting a 6,650 lb payload, was a major improvement. The exhaust collector ring was revised, as were the exiting exhaust pipes. With the addition of an external fuel tank, fuel capacity was increased to 500 gallons in the scouting role. The AD-2 could take off at 80 to 85 knots, would stall at 75 knots, and had a top speed of 328 knots Range was 1,386 nautical miles.

Numerous cockpit refinements were made, including a revised windscreen and canopy, and the pilots headrest was completely redesigned. Functionally designed controls (the use of a small flap for the flaps, and a small wheel for the wheels, etc.) were added. A new aerial mast and a revised short aerial wire, running directly to the fuselage, was added, and on later production AD-2s, a pitot tube was fitted to the leading edge of the fin. Hinged undercarriage doors were installed for the first time.

Even with all the changes and modifications, the Skyraiders normal gross weight was only 16,332 lbs. One hundred seventy-eight AD-2s were delivered to the Navy.

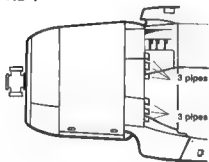
## Variants

**AD-2Q** Electronic Counter Measure (ECM) aircraft with a compartment similar to the AD-1Q. Even with the addition of ECM equipment and associated fuselage modifications, the -2Q performed very similarly to the -2. Top speed was 317 knots at 18,300 ft., cruise speed was 205 mph, service ceiling was 31,500 ft., and range was 850 miles. 21 AD-2Qs were built.

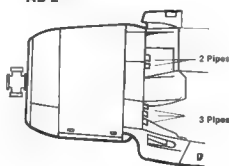
**AD-2QU** a one of a kind modification in which a -2Q airframe (122373) was modified with provisions for target towing duties.

## Exhaust Development

AD-1



AD-2



AD-2 (122225), freshly painted in the markings of VA-155, on the ramp at NAS Alameda, CA. This Skyraider was flown by the squadron C.O., LCDR. G.R. Stabilein, and carried his name in White below the canopy. A new revised blade aerial mast replaced the older pole styled mast. The new serial wire ran from the mast to the fuselage. 21 September 1948. (Bill Larkins)

## Canopy Development

AD-1



AD-2



## Aerial Mast Development

AD-1



AD-2

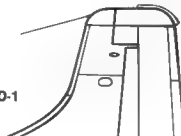


AD-2  
(Late)



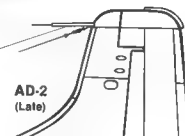
## Tail Development

AD-1



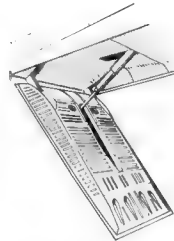
Pitot tube

AD-2  
(Late)



AD-2s of VMA-121 (AK-2 is serialled 122285) fly in echelon during a training flight prior to their Korean combat deployment. The mountainous terrain near MCAS El Toro, CA., proved to be very close to the ground conditions they would encounter in Korea. (Clay Jansson via W.F. Gemeinhardt)

**Fuselage  
Bottom  
Dive  
Brake**



(Below Left) AD-2 (122225) in Korea serving with Marine Aircraft Maintenance Squadron 12 (MAMRON 12) at K-6 Pyongtaek, Korea. 13 November 1953. (Charles Trask via Bill Larkins)

AD-2 (122289) of VA-65 (formerly VA-6B) makes a three-point landing at NAAS Santa Rosa, CA. VA-65 was between combat tours aboard the USS Boxer. August 1951. (Bill Larkins)

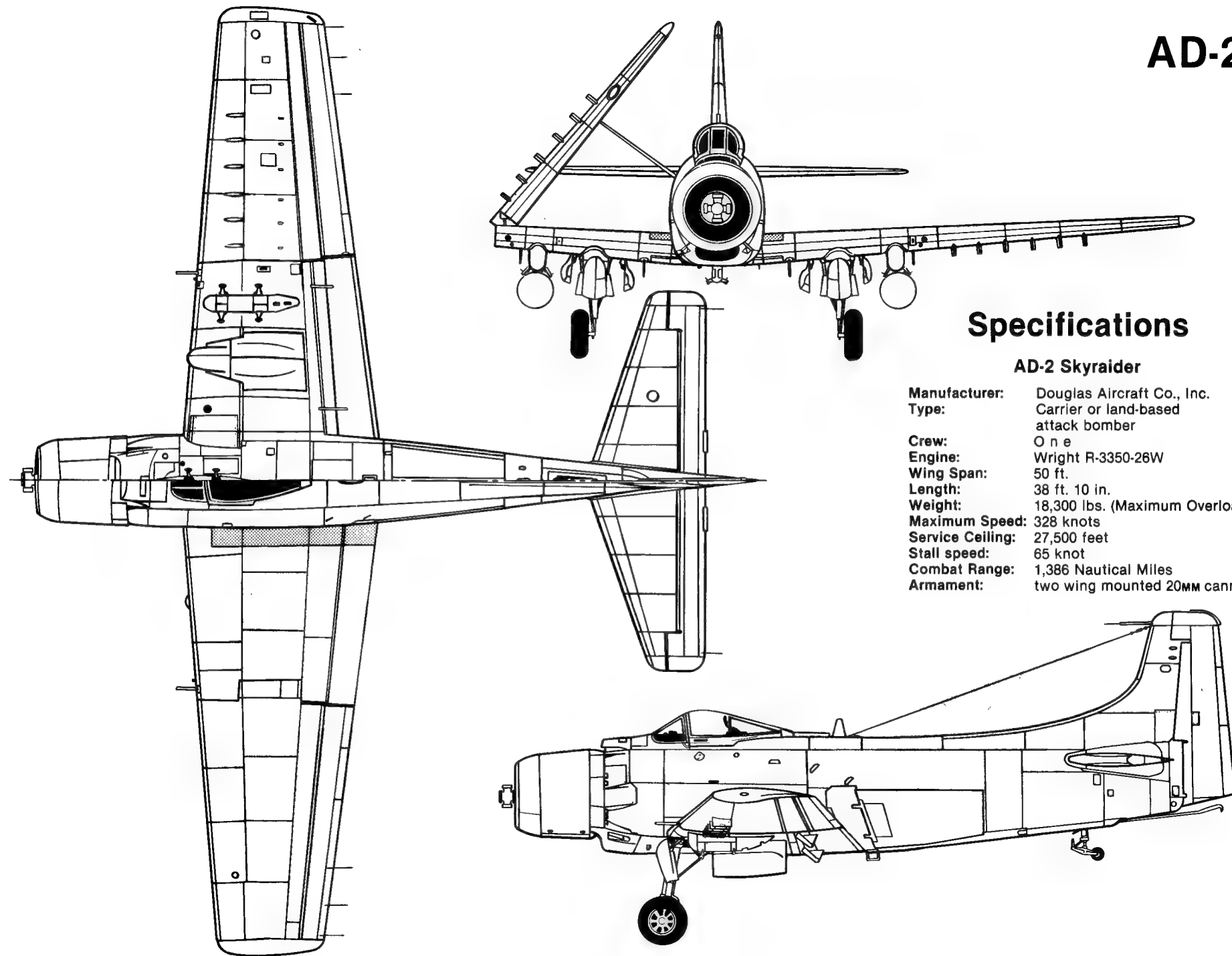


# AD-2

## Specifications

### AD-2 Skyraider

<b>Manufacturer:</b>	Douglas Aircraft Co., Inc.
<b>Type:</b>	Carrier or land-based attack bomber
<b>Crew:</b>	One
<b>Engine:</b>	Wright R-3350-26W
<b>Wing Span:</b>	50 ft.
<b>Length:</b>	38 ft. 10 in.
<b>Weight:</b>	18,300 lbs. (Maximum Overload)
<b>Maximum Speed:</b>	328 knots
<b>Service Ceiling:</b>	27,500 feet
<b>Stall speed:</b>	65 knot
<b>Combat Range:</b>	1,386 Nautical Miles
<b>Armament:</b>	two wing mounted 20mm cannon





(Above) AD-2 (122231) of VA-155, goes into a torque roll after taking a wave-off by the LSO aboard the USS Valley Forge. The Skyraider splashed inverted, and the pilot was lost. 31 August 1948. (National Archives)

## CARRIER CRASHES

(Below) AD-2 of VA-35, landed long aboard the USS Leyte off Korea, clipping a 5-inch gun mount with the wing. After trying desperately to fly away, the AD rushed into the ocean. The uninjured pilot was picked up immediately. 10 November 1950. (National Archives)







AD-2 (122251) of VC-33 warms-up prior to take off from NAS Atlantic City, N.J. Note the squadron insignia on the fuselage which can be seen below and in front of the windscreen. 17 July 1951. (via Bill Larkins)

AD-2 (122330), totes a torpedo on the centerline, a pair of 2,000 lb. bombs on the inner wing panels, and twelve 5-inch HVARs on the outer wing panels, during armament testing at the Naval Air Test Center at Patuxent River. (National Archives)



(Below) AD-2 (122234) of VA-859 missed the wires and tangled with the barrier aboard USS Tarawa. The pilot is hastily exiting the burning Skyraider. 7 July 1952. (National Archives)



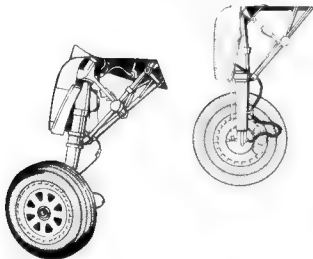


## Landing gear

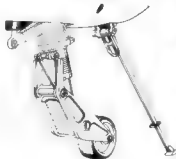
AD-2 Skyraiders of VA-34 aboard USS Leyte, armed with 3 torpedos and 12 rockets for use during a firepower demonstration. Note how securely the lead AD is tied to the flight deck. May 1949. (National Archives)

## Main gear

AD-2 (122310) 'Jinx', of VA-702, took AA hits during strikes launched from USS Boxer. It was diverted to a Korean land base for repair. 13 June 1951. (National Archives)



## Tailwheel and Hook Arrangement



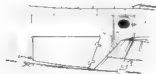
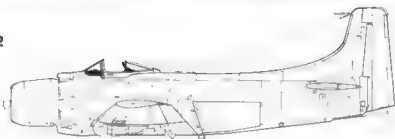


AD-2Q (122366) of VF-152 is seen parked on display at the San Francisco Air Fair. The pilots name, Ens. W.B. Whitten, is painted just forward of the windscreen. Note the AN/APG-4 radar pod on the port wing. 30 October 1949. (Bill Larkins)

AD-2Q (122366), fresh from the production line at El Segundo, CA. It was accepted by the Navy in August of 1948 and served until January of 1952 when it was stricken from inventory. Its last duty was with VC-33. 9 August 1948. (via Hal Andrews)

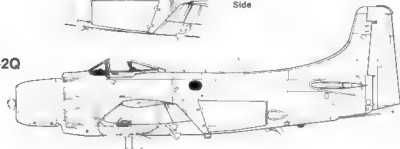


AD-2



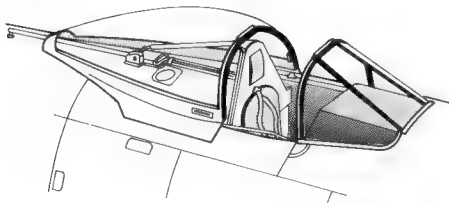
AD-2Q  
Starboard  
Side

AD-2Q





## AD-2 Canopy



AD-2Q (122383) of VC-33 on the flight line of NAS Norfolk, VA, where the 'Night Hawks' were stationed. Note the dull finish on the cowlings. 1949. (via Peter Mancus)

## AD-2QU

AD-2QU (122373), a one-of-a-kind conversion for target-towing duty is parked on the ramp at NOTS Inyokern, CA. 1952. (via Bob Esposito)



# AD-3 Skyraider

Under the designation AD-3, few changes were made. The main landing gear oleo stroke was lengthened by 14 inches. The tail wheel was revised and was no longer fully retractable, but now protruded slightly below the fuselage during flight. The propeller was improved and the cockpit was further refined. The pitot tube added to the tail of the -2 was deleted and the antenna wire was re-arranged. The bottom of rudder was changed slightly in shape. Top speed was 325 knots at 18,300 feet and range was 1,310 nautical miles. When production terminated in mid-1949, one hundred ninety-four AD-3s had been produced.

## Variants

**AD-3Q** ECM aircraft with a revamped ECM compartment and antenna system. Twenty-two were produced.

**AD-3W** Airborne Early Warning Aircraft, a three man version with a large belly mounted radome housing search radar. This configuration was nicknamed "Guppy". Thirty-one were produced.

**AD-3E** Modified from AD-3W aircraft, with special electronic equipment. Two were produced.

**AD-3N** Night Attack aircraft carrying a crew of three. Fifteen were produced.

**AD-3S** Anti-submarine Warfare (ASW) aircraft. Two were built from AD-3N aircraft.

**AD-3 (122732)**, during testing at NATC Patuxent River, carrying a 2,000 lb. bomb on the centerline and an AN/APG-4 radar pod on the port wing rack. The AD-3 was capable of 325 knots. 8 March 1949. (USN via Hal Andrews)



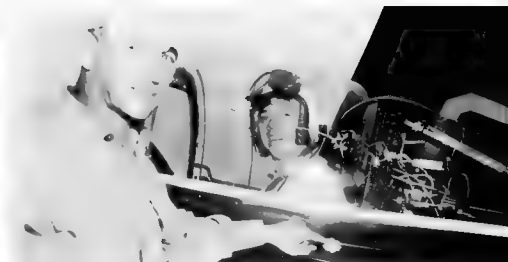
AD-3 (122798) of VA-35 just landed on board USS Leyte off the Korean coast. The rudder tip is Green, all other markings, with the exception of the Red bar in the insignia, are White. 12 November 1950. (National Archives)

"Hefty Betty", an AD-3 (122737) from VA-923, ready to launch from USS Bon Homme Richard off the coast of Korea. This unit was called up for duty from NAS St. Louis, MO. Note the addition of a single piece exhaust glare shield just behind the cowlings. October 1951. (via John Woods)





AD-3 (122805) of VC-12, gets chewed up by a landing AD-4Q (124042) of VC-33 on board USS Leyte. Both aircraft suffered strike damage, and one of the pilots was killed. 14 January 1952. (USN via Walt Ohlrich)



Ens. Harold Reutebuch of VA-923 in the battle-damaged cockpit of an AD-3 (122780) aboard Bon Homme Richard. Air Group Commander H. Funk points to another AA hit. 8 July 1951. (USN via Harold Reutebuch)

## Tail Wheel

AD-2



AD-3



Partially retracting tail wheel

## Cockpit

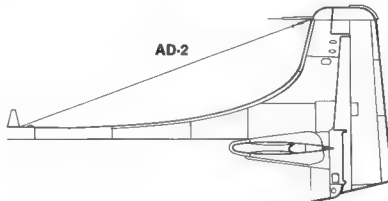
AD-2



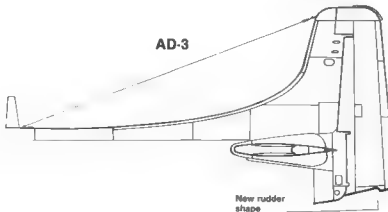
AD-3



AD-2



AD-3



New rudder shape

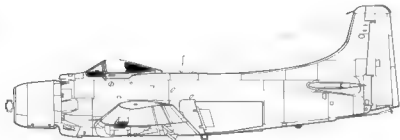
AD-3 (122875) of VC-33 has heavy AA damage to the tail section, sustained while on a mission near the Yalu River. Pilot, Ens. R.H. Rohr, made an emergency landing at Pyongyang, Korea. 24 November 1950. (National Archives)



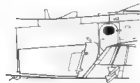


AD-3Q (122854) is factory fresh as it prepares for its Navy acceptance flight. 854 is carrying the AN/APS-4 radar pod under the port wing. El Segundo, CA. 18 May 1949. (via Hal Andrews)

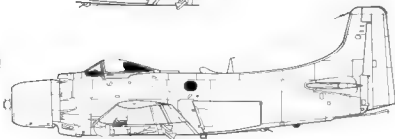
### AD-3



Starboard Side of AD-3Q



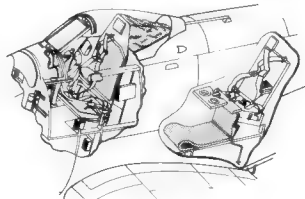
### AD-3Q



AD-3Qs (NR 60 is 122866) of VC-35 fly a starboard echelon formation. A detachment of four of these (ECM) aircraft were assigned to each Fleet carrier. 13 March 1951. (National Archives)

### AD-3Q

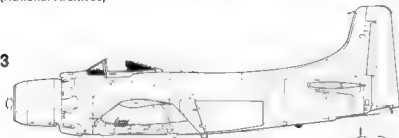
Cockpit and  
ECM Operators  
Compartment



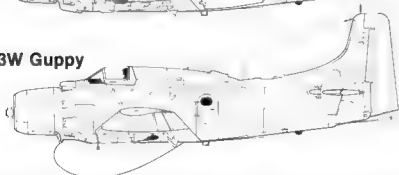


AD-3Ws of VC-11 from the USS Boxer have arrived at an emergency landing field in Korea bringing metalsmiths and parts to repair the damaged wing of another Skyraider. 13 June, 1951. (National Archives)

AD-3



AD-3W Guppy



The AD-3W radome housing search radar. Note the Summer flying suits, helmets and life jackets of the crew. Also note the lack of landing gear fairings on this version. NAS Quonset Point, RI. May 1951. (National Archives)







AD-3W (122878) during Electronics Test Flight at NATC Patuxent River, MD. The -3W was a three man version designed to carry search radar and was employed as a flying fleet early warning aircraft. Because of its appearance it was nicknamed 'Guppy'. 9 November 1950. (National Archives)

The second of the two AD-3Es (122907), that were modified from AD-3Ws, uses a booster generator during the extreme cold of the winter aboard USS Valley Forge off Korea. December 1950. (National Archives)

(Left) AD-3W Airborne Early Warning aircrew sit side-by-side in the fuselage ECM compartment crammed with electronics gear. This aircraft is getting a thorough inspection prior to a long flight. 3 May 1951. (National Archives)

(Below) One of the two AD-3Es (122906), assigned to VX-1, a development squadron. It is airborne with an AD-3S, both aircraft were stationed at NAS Boca Chica. 31 January 1950. (National Archives)





XBT2D-1 (09085) prototype  
Dauntless II in natural Aluminium  
on it's first flight, 18 March 1945.



ENS. BILL NEWELL



AD-1 of Navy VA-4B off the USS  
Franklin D. Roosevelt. 1949.



AD-3, Hefty Betty, of Navy VA-923  
off USS Bon Homme Richard,  
Korea, October 1951.

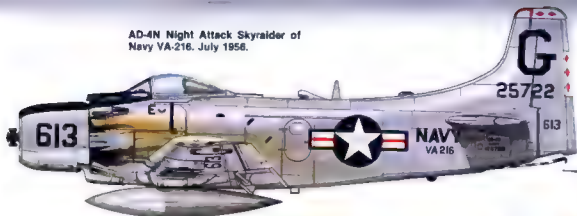
AD-3W (122886) Guppy of Marine  
HEDRON-2 at MCAS Cherry Point,  
N. C., 1951.



AD-4 of Navy VA-194 off Valley  
Forge, Korea, 1951.



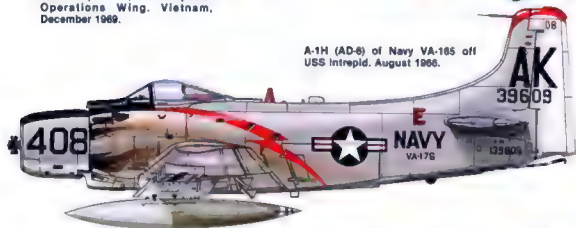
AD-4N Night Attack Skyraider of  
Navy VA-216. July 1956.



A-1E (AD-5) 602nd Special Operations Squadron, 56th Special Operations Wing, Vietnam, December 1969.



A-1H (AD-6) of Navy VA-165 off  
USS Intrepid, August 1966.



A-1H (AD-6) of the Vietnamese Air  
Force, 83rd Squadron, 23rd Wing,  
Tan Son Nhut AB, Vietnam,  
December 1970.



MISS PUSSY GALORE



A-1H (AD-6) of Navy VA-165 off  
USS Intrepid, August 1966.



AD-3N (122922) during testing of various bomb and radar configurations. The Naval Air Test Center flew every possible combination of stores to determine the flying characteristics under varying conditions while they were 'writing the book' for pilots who would later fly with the fleet. Patuxent River, 21 November 1949. (National Archives)

(Above Right) AD-3N (122914), marked with three White bands across the top of each wing, is an Electronics Test aircraft. Only fifteen of these -3N Night Attack aircraft were built. NATC Patuxent River. 15 March 1951. (National Archives)



AD-3



AD-3N



(Middle Right) AD-3S (122910), one of only two machines to be modified from AD-3N nightfighter airframes to the Anti-Submarine Warfare (ASW) configuration. It carries the markings of VX-1 and is flying just off the Florida coast in the Key West area. 31 January 1950. (National Archives)

(Right) The other -3S aircraft which was modified to the ASW role, is seen during a routine check of the powerful searchlight assembly used during anti-submarine duty. NAS Boca Chica, FL. 13 June 1951. (National Archives)



## AD-4 Skyraider

AD-4 of VA-728, a Reserve Squadron belonging to Air Group 15, launches from USS Anietam off the Korean coast, intent on inflicting maximum damage on railroad facilities. 25 February 1953. (National Archives)

AD-4 (129003) of H&MS-14 with the pilot strapping in for take-off. Philadelphia, PA. 1957. (via Bob Esposito)

The AD-4 featured the installation of the new APS/19A radar that required the installation of a new instrument panel, which included a Mod 3 or Mod 4 bomb director. A P-1 auto pilot was also installed. The windscreen was redesigned to provide for a wider bullet proof glass in the windshield, and a pitot tube was again fitted to the top of the vertical fin. The powerplant was a Wright 3020 hp R-3350-25WA engine, providing a top speed of 315 knots with a range of 1,110 nautical miles. From the 210th production machine, the AD-4 was armed with an additional 20MM cannon in each outer wing panel. Eventually most AD-4s were retrofitted with the additional 20MM cannons. Outbreak of the Korean War brought about increased production of the AD-4 Skyraider, with 1,051 being produced.

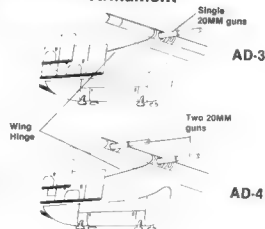
### Variants

- AD-4L Winterized with de-icer boots on the leading edge of the wings, horizontal stabilizers, and fin. Sixty-three were modified.
- AD-4B Nuclear Bomber, with a special Aero 3A center line ejector rack capable of carrying atomic weapons. One hundred sixty-five were produced, which provided the Navy with its first large scale nuclear capability.
- AD-4Q ECM aircraft. Thirty-nine were produced.
- AD-4N Night Attack aircraft. Three hundred seven were produced.
- AD-4NL Winterized Night Attack aircraft, -4Ns with de-icer boots.
- AD-4NA Day attack aircraft. AD-4N Night Attack Aircraft modified to the day attack role.
- AD-4W Airborne Early Warning aircraft. Sixty-eight were produced.

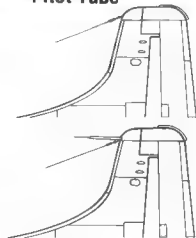
Under the Mutual Defense Assistance Program (MDAP) fifty AD-4Ws were provided to Great Britain under the designation AEW 1. From this batch, fourteen AEW 1s went to Sweden for modification as target towing aircraft. France purchased 100 AD-4 and AD-4N Skyraiders. After the Algerian war, the United States tried to re-purchase them for use in Vietnam. France gave many of their remaining Skyraiders to Cambodia instead.

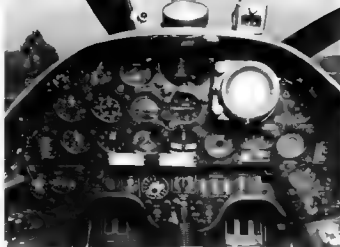
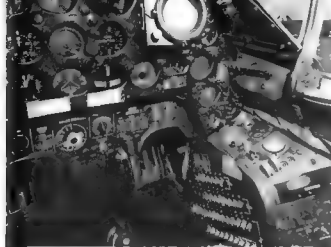


### Armament



### Pitot Tube





## AD-4 Details

Clockwise starting at left top:

(Above Left) View of the cockpit of AD-4 (123816). (National Archives)

(Above) Main panel and portion of right console. (National Archives)

(Above Right) The Visual display from the gunsight. (National Archives)

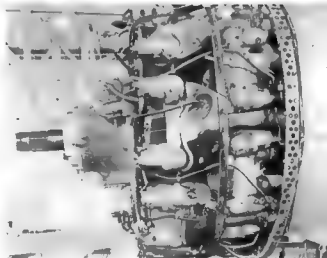
(Right) The Wright 3,020 hp R-3350-26WA engine. (Dave Forest)

(Below Right) Engine mount assembly. (Dave Forest)

(Below) Bomb-laden AD-4 from VA-115. (National Archives)

(Below Left) RAM rocket armed Skyraider from VA-195. (National Archives)

(Left Center) Engine maintenance. (National Archives)





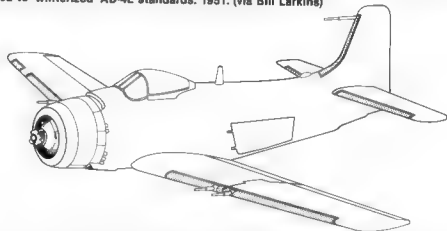
This AD-4 (123934) of VA-75 was launched from USS Bon Homme Richard, and was damaged by AA fire during a raid over Korea. The Skyraider diverted to a field near Wonsan where it made a safe emergency landing. Determined to be repairable, the AD-4 was towed to Wonsan harbor where it was loaded aboard a barge and taken out to the USS Iwo. It was hoisted aboard the battlewagon and eventually returned to its carrier. September 1952. (National Archives)

AD-4L (123968) of VA-728 crashed aboard USS Anietam. Shortly after this photo was taken, the Skyraider was pushed over the side. 10 July 1951. (National Archives)



AD-4L (127852) with a load of six 5 inch rockets on each wing, an 11.75 inch "Tiny Tim" rocket under the port wing and an ECM pod under the other...this freshly-modified Skyraider was a 'winterized' version with de-icer boots on the leading edges of the wings, horizontal stabilizers and fin. A total of sixty-three AD-4s were modified to 'winterized' AD-4L standards. 1951. (via Bill Larkins)

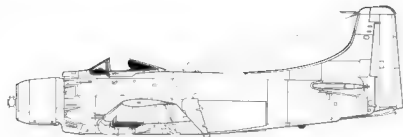
#### AD-4L De-icer Boots



AD-4L (123981) seen after modification at the Douglas factory at El Segundo, CA. 8 March 1951. (via Hal Andrews)



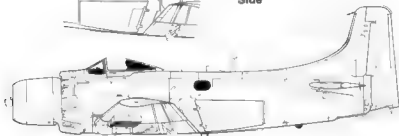
AD-4



AD-4Q



AD-4Q  
Starboard  
Side



(Right) AD-4Q (124055) of VF-194 lost power on take-off from the USS Boxer and ditched off the port bow. The pilot was quickly recovered unharmed. July 1953. (National Archives)

(Below) Cdr. Funk, the Commanding Officer of CAG-102 just prior to launching in his AD-4Q. Cdr. Funk led the first strike on Korean targets from USS Bon Homme Richard. This machine has not yet been retro-fitted with the additional 20mm wing cannon. 1951. (John Woods via Fred Roos)

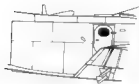
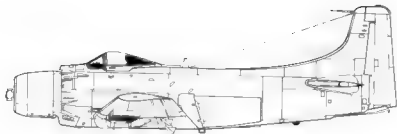


AD-4Q (124056) of CVG-17 off USS Franklin D. Roosevelt. The pilot, Cdr. W.N. Leonard made an emergency landing after the engine main seal blew. The oil covered front of the cowl is a graphic reminder of how close the race was to get the AD on the ground before the engine seized up. 1949. (Paul J. McDaniel)



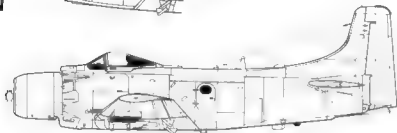


## AD-4



AD-4N  
Starboard  
Side

## AD-4N



AD-4N (125729) of VMC-3 totes large ECM pod beneath the starboard wing. This version had a three-man crew consisting of pilot, radar operator and ECM operator. MCAS El Toro, CA. 20 February 1953. (National Archives)



(Right) AD-4N (127014) of VX-3 during a training flight. 1953. (via Paul J. McDaniel)

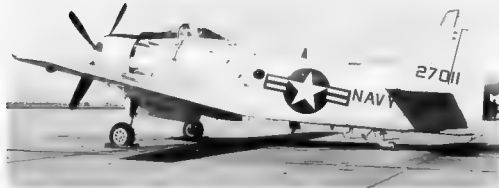
(Below) "Janet", an AD-4N (125723) of VMC-1, at K-16, Korea, has a slight Blue overspray on all markings including the national insignia. The name "Janet" appears just under the nose number. Note also the replacement ECM compartment hatch with the partial Red and White bar markings. 17 February 1954. (Charles Trask via Bill Larkins)





AD-4N (127011) of Fleet Air Wing Training Unit-Pacific (FAWTUPAC). Note the heavy exhaust pattern on the fuselage. 19 November 1953. (National Archives)

AD-4NL (124741) of VC-35 banks starboard. The 'NL' was modified from the AD-4N as a winterized Night Attack aircraft with de-icer boots. Note the flash shields on the 20mm guns. 6 October 1951. (National Archives)

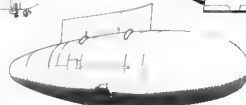


AD-4NA (127011), a night attack AD-4N converted to the day attack role, belonging to FASRON-10, is seen in the change-over paint scheme of Gray and White. On display at NAS Moffett Field, CA. 19 May 1956. (Bill Larkins)

AD-4 20MM Guns



AD-4N 20MM Guns with Flash Hiders



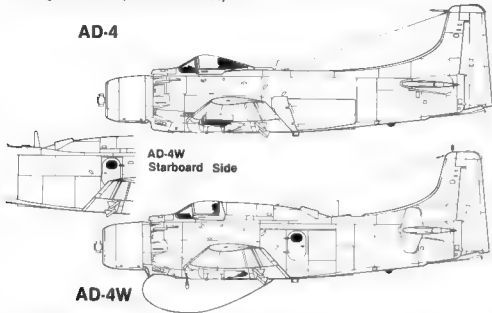
AD-4N  
ECM POD

AD-4B (127871) of HEDRON AFMFPAC is armed with four 20mm cannon in the wings with 200 rounds per gun. The AD-4B had the capability of carrying atomic stores. 1952 (via W.F. Gemeinhardt)



AD-4W (127879) during flight testing at the Naval Air Test Center at Patuxent River. This three place Skyraider was equipped with special electronics gear for the Airborne Early Warning Role. 1950. (via Peter Mancus)

#### AD-4



#### AD-4W

AD-4W (126840) of VMC-1. This aircraft was credited with a 'kill' near Seoul, Korea in June of 1953. (USMC)

AD-4W (124771) of VC-12 on display at the Cleveland, Ohio National Air Races in 1951. This Skyraider was later made available to the English and was modified to an AEW-1 designation, and served with the British Fleet Air Arms as WT-967. (via Bill Larkins)





## AD-5 (A-1E) Skyraider

AD-5 (133928) of VMA-332 "Polka Dots" is fully loaded with twelve HVARs, two 11.75 Tiny Tim rockets and a 500 lb. bomb. 1955. (via Bob Esposito)

cluded that of ambulance and troop carrier. It became known as the "12 in 1" raider

AD-5W Airborne Early Warning aircraft. Two hundred-seventeen were produced.

AD-5S Anti-Submarine Warfare (ASW), aircraft. One prototype was produced.

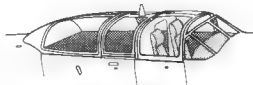
During 1962 the Navy again revised its aircraft code designation system. The AD Skyraider became the A-1 Skyraider under the following designations.

AD-5	—	A-1E
AD-5W	—	EA-1E
AD-5Q	—	EA-1F
AD-5N	—	A-1G

### Canopy Designation



AD-4



AD-5

#### Variants

AD-5N Night Attack aircraft. One hundred thirty-eight were produced.

AD-5Q Electronic Counter Measures aircraft. Fifty-four machines were converted from AD-5N aircraft for ECM work. The -5Q was the most versatile version of the Skyraider and carried the most complicated electronics ever put together at the Douglas plant. By using a kit concept, the -5 was capable of duties that even in-



(Above) AD-5 (133929) of VA-65 from NAS Alameda, CA., is seen at NRAB Minneapolis, MN. 1956. Tall striping is alternating Medium Green and White. (Bob Stuckey)



(Left) A-1E (AD-5) (133884), with full flaps down (40 degrees), lands at Shaw AFB, SC. 30 March 1968. (Jim Sullivan)



(Right) A-1E (AD-5) (132435) of VA-125 was participating in a search mission when it developed engine problems. The pilot elected to belly-in on a snow covered glacier in the California High Sierras. The pilot was rescued by helicopter, but the aircraft was abandoned. Later the USN turned over ownership to the USAF who took the A-1E out by chopper, refurbished it, and later used it in Vietnam. February, 1969.(USN via Walt Ohlrich)

### Pylon Development

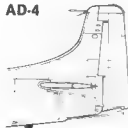
AD-4



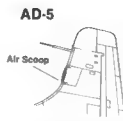
AD-5



AD-4



AD-5



Air Scoop



Addition of Air Scoop



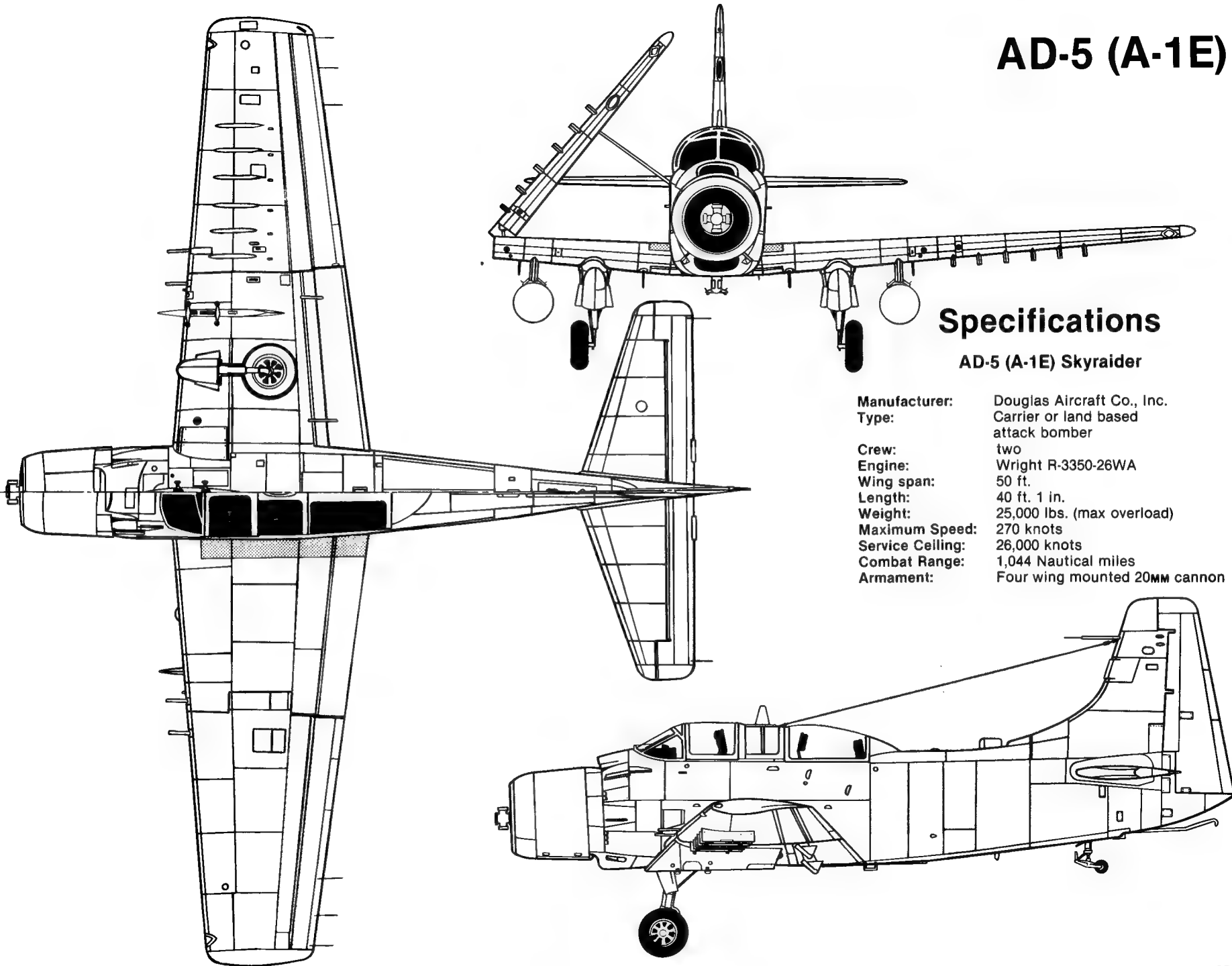
(Left) A-1E (AD-5) (132612) of 1st SOS, 14th SOW at Nha Trang AB, RVN. 1965. (R. Leavitt via Doug Slowiak)

# AD-5 (A-1E)

## Specifications

### AD-5 (A-1E) Skyraider

Manufacturer:	Douglas Aircraft Co., Inc.
Type:	Carrier or land based attack bomber
Crew:	two
Engine:	Wright R-3350-26WA
Wing span:	50 ft.
Length:	40 ft. 1 in.
Weight:	25,000 lbs. (max overload)
Maximum Speed:	270 knots
Service Ceiling:	26,000 knots
Combat Range:	1,044 Nautical miles
Armament:	Four wing mounted 20mm cannon





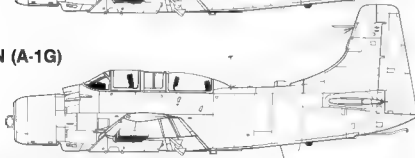
AD-5N (132553) of VC-33 "Night Hawks". SS Modex on tail and name of squadron on the cowlings are in white. The rear cockpit glass is heavily tinted in blue to screen the sensitive electronic equipment from the sun's rays. 1952. (via Peter Bowers)

(Right) AD-5N (132852) during Douglas flight test. ECM and Searchlight pods are carried on this Skyraider. 1953. (via Hal Andrews)

AD-5 (A-1E)



AD-5N (A-1G)



AD-5Ns of VMCJ-3 fly in formation near MCAS El Toro, CA. 1958. (USMC via W.F. Gemeinhardt)





AD-5N (135043) of VAAW-33 during a routine flight. A total of 238 of this night attack version were built. 1960. (via Tom Curry)



A-1G (AD-5N) (132618) of VAW-33 is flying from USS Independence. This Skyraider could carry a crew of four. 1 May 1962. (USN via Peter Mancus)



A-1G (AD-5N) (134990) in freshly-painted USAF scheme. The Air Force version carries a full complement of under wing racks while the Navy version usually did not. 1966. (via Peter Mancus)



EA-1F (AD-5Q) (134994) of VAW-10 is tied down on the flightline at NAS Quonset Point, RI. A major AD re-work facility was located at this Naval Air Station. 17 August 1968. (Ira Ward)

A-1G (AD-5) (135018) of VAW-33 from USS America during stop-over at RAF Luga, Malta. 21 March 1967. (Flight Leader Russell-Smith)

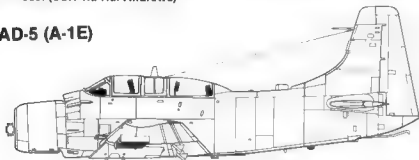




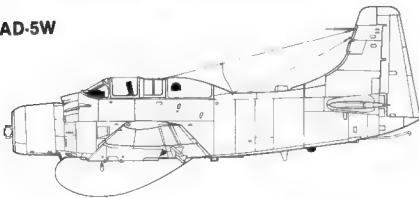


AD-5W (135212) seen landing during SEATO exercise 'Sea Lion' in the South China Sea. Despite the bulky radome, the AD-5W handled little differently than other Skyraiders. 5 April 1960. (USN via Hal Andrews)

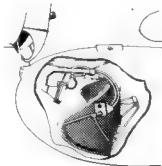
### AD-5 (A-1E)



### AD-5W

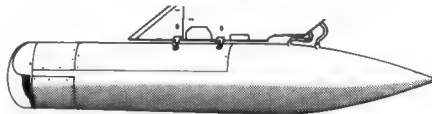


### AD-5W Radar and Radome Arrangement



AD-5W (135187) of VC-11 carries White Modex 'ND'. June 1956. (National Archives)

### AD-5S Search Light/ECM pod and pylon mount assembly



AD-5S (132479), a one-of-kind anti-submarine hunter equipped with Magnetic Anomaly Detection (MAD) system. Note the boom housing just beneath the rudder. The Skyraider submarine-hunter project was cancelled when the Grumman hunter-killer S2F-1 Tracker was accepted. El Segundo, CA. 4 June 1953. (via Hal Andrews)





## AD-6 (A-1H) Skyraider

A-1H (AD-6) (134530) of VA-165 makes a successful recovery, with hung-up ordnance, aboard Intrepid which was patrolling at 'Yankee Station' in the Gulf of Tonkin, September 1966. (USN via Walt Ohlrich)

Produced concurrently with the two place AD-5, the AD-6 was basically a refined AD-4B Nuclear Bomber with the capability of carrying atomic stores. The "Able Dog Six" also had the narrow fuselage, small canopy and the smaller tail surfaces of the earlier Skyraiders, but with a strengthened center section and simplified electronics equipment. Instrumented for all-weather flight and low level bombing. The -6 was powered by a Wright R-3350-26WD producing 2700 hp providing a top speed of 285 knots, with a service ceiling of 28,500 feet and a combat range of 1,143 nautical miles. The pilot was provided added protection with the addition of armor-plating to both sides of the fuselage just below the cockpit and on the bottom of the fuselage. The side fuselage dive brakes deleted on the -5, remained on the -6 series. Provisions were made for one 300 gallon centerline fuel tank and two 150 gallon wing tanks in addition to the internal self-sealing 380 gallon main tank. Wing armament was two 20mm cannon in each wing. A unique feature for emergency bail out, was the installation of an extraction rocket that pulled the pilot clear of the cockpit. The AD-6 was the first "Able Dog" to be built without sub-variants.

Douglas produced seven hundred thirteen of this single place attack aircraft through August of 1956. The AD-6 was flown by the USN, USMC and USAF. During the mid-1960s AD-6s were made available to the VNAF.

In 1962 the AD-6 was redesignated to A-1H.



AD-6 (135315) of VA-45 comes across the ramp of Intrepid, February 1955. (National Archives)



AD-6 (134488) of VA-25 launches from USS Independence in July 1959. (Tom McManus)

AD-6 (134467) of VMA-332 seen flying high over the Everglades near NAS Miami, FL. March 1956. (USMC)



(Below) AD-6 (135357) of VA-42 bolters off the angled-deck of the USS Forrestal. March 1956. (National Archives)

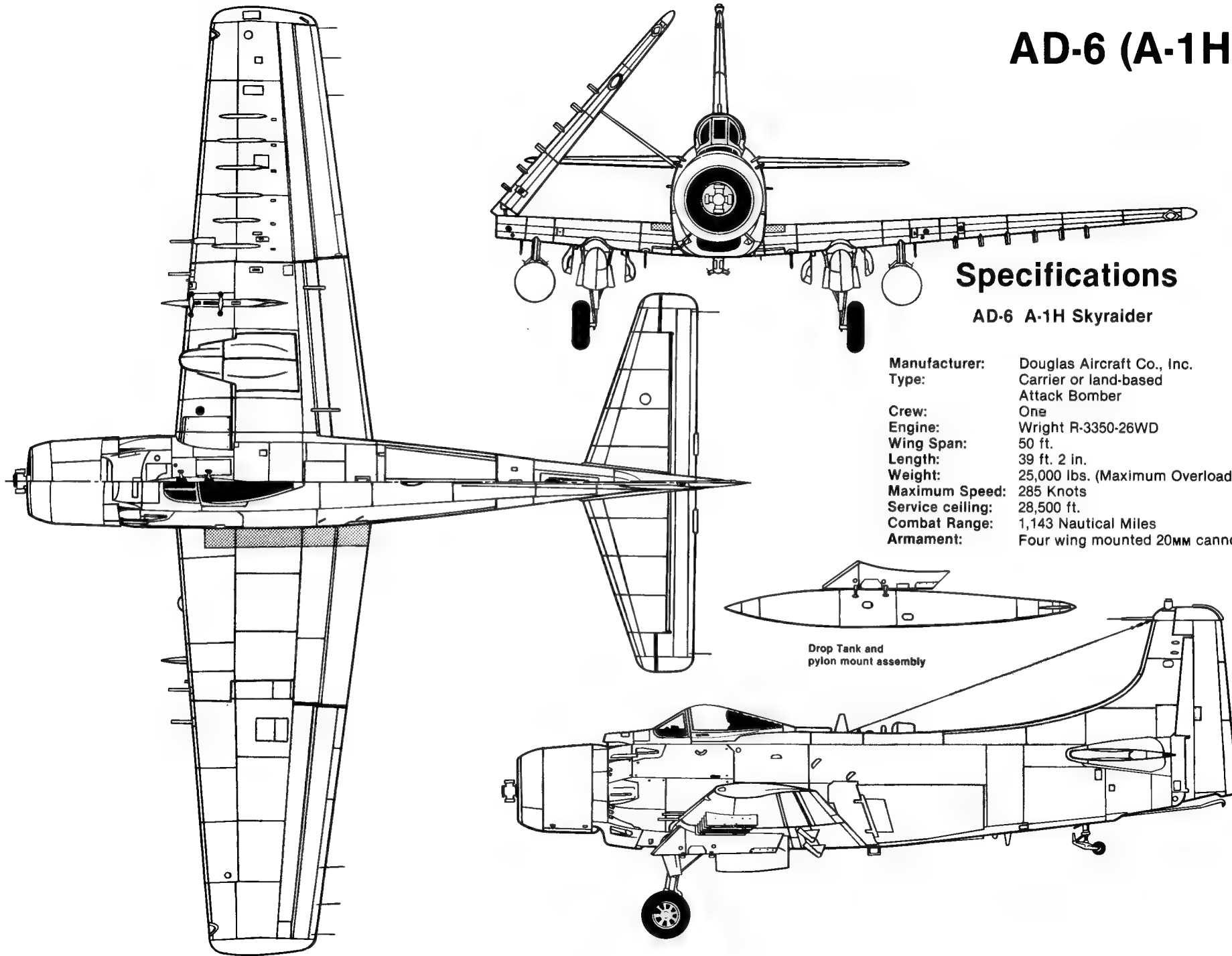


# AD-6 (A-1H)

## Specifications

### AD-6 A-1H Skyraider

Manufacturer:	Douglas Aircraft Co., Inc.
Type:	Carrier or land-based Attack Bomber
Crew:	One
Engine:	Wright R-3350-26WD
Wing Span:	50 ft.
Length:	39 ft. 2 in.
Weight:	25,000 lbs. (Maximum Overload)
Maximum Speed:	285 Knots
Service ceiling:	28,500 ft.
Combat Range:	1,143 Nautical Miles
Armament:	Four wing mounted 20mm cannon





A-1H (AD-6) (134605) belonging to the Republic of Vietnam Air Force undergoing maintenance at Bien Hoa AB, RVN. 1964. (R. Leavitt via Doug Slowiak)

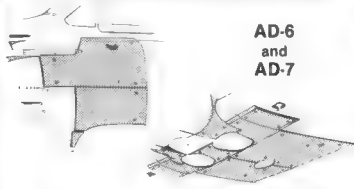


(Left) AD-6 (134564) of VA-196, pulling tight against the wire, recovers aboard USS Lexington. Note Red with Black trim on fin and rudder. July 1957. (National Archives)

(Right) AD-6 (137587) of VA-145 from USS Hornet, patrolling over the Philippine Islands, February 1957. (National Archives)



### Additional Armored Pilot Protection



AD-6  
and  
AD-7



(Left) AD-6 (137552) of VA-96 prepares to launch from USS Kearsarge in February 1958. (USN via Hal Andrews)

(Right) AD-6 (135305) of FASRON-4 Detachment-A at NAS Miramar, CA. 1957. (Warren Bodie)





AD-6 (134608) of VMA-225 based at NAS Miami. Tail and wing tip trim is Dark Green stars on a White field with a Black band. Wilmington, NC. 1957. (Paul J. McDaniel)



AD-6 (139754) of VMA-331 carries the Black Modex 'VL'. The fin trim is Red. Note the 150 gallon wing tank. 1959. (USMC via W.F. Gemeinhardt)



(Left) A-1H (AD-6) (139746) of the Vietnamese Air Force seen in a colorful 'swept' Yellow and Black checkerboard fuselage trim. American trained Vietnamese pilots flew these Skyraiders. 27 September 1967. (via Peter Mancus)



(Right) AD-6 of VA-104 an instant before recovering aboard USS Leyte, 24 October 1955. (National Archives)



(Right) A-1H (AD-6) (134563) of VA-145 bellied in at NAS Miramar, CA. Note heavy oil staining on fuselage bottom. 23 January 1968. (USN via Walt Ohlrich)



(Left) A-1H (AD-6) (137545) of VA-196 in the markings of Air Station CO, Capt. Howard M. Avery. NAS Lemoore, CA. 25 April 1963. (USN via Bill Curry)



A-1H (AD-6) (139778) in the markings of VA-115, "The Arabs", from USS Kitty Hawk. Earlier markings are showing through the faded and peeling camouflage paint scheme. July 1986. (via Roger Besecker)

AD-6 (139798) of VA-35 aboard USS Saratoga while off the coast of Lebanon, July 1958. (USN via Hal Andrews)



A-1H (AD-6) (135332) of the 4407th CCTS, 1st SOW on the flightline at Hurlburt Field in Florida. Combat training for Vietnam was provided at this base. 1971. (Bob Esposito)

A-1H (AD-6) (135275) of VA-25 from USS Coral Sea heads inland for a strike on Vietnam. 1963. (via Roger Besecker)





## AD-7 (A-1) Skyraider

AD-7 (142010) of VA-95, piloted by squadron CO., Cdr. Wright, has just released the cable after coming aboard USS Ranger. January 1960. (USN via Hal Andrews)

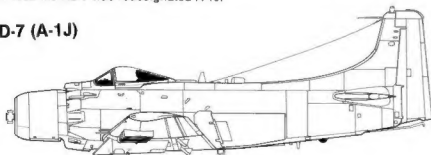
A-1J (AD-7) (142021) of VA-145 "Swordsmen", is fully loaded and on display at the Reno Air Races. 23 September 1966. (Author's Collection)

The final version of the Skyraider, the AD-7, was externally identical to the AD-6. Powered by the new Wright R-3350-26WB engine, top speed was 285 knots and combat range was 1128 nautical miles. The AD-7 had the strongest landing gear, as well as strengthened wing spars and wing fittings. Because the Navy needed additional fuel tankers, the AD-7 was ordered equipped with external refueling equipment. The program was so successful that additional refueling kits were ordered for retro-fitting to the earlier AD-6s for the tanker role.

The Navy had originally planned to acquire 240 AD-7s, however, most of these were cancelled, with only 72 AD-7s being produced by Douglas. On 18 February 1957, an era came to an end, when the last piston engine Navy bomber rolled off the assembly line, an AD-7 (142081). A total of 3,180 Skyraiders had been produced.

In 1962 the AD-7 was redesignated A-1J.

### AD-7 (A-1J)







### Airplanes BuNo. 139606 through 142081

1. Landing check list
- 1A. Marker beacon audio switch
2. Marker beacon light
3. Manifold pressure gauge
4. Deleted
5. Eight-day clock
6. Airspeed indicator
7. AN/APN-22 radar altimeter
8. LABS indicator light (above shield)
9. Deleted
10. Vertical gyro indicator
11. Gunsight
- 11A. LABS indicator
- 11B. Magnetic sump plugs warning light
12. Deleted
13. Deleted
14. Standby compass
- 14A. LABS control panel
15. Windshield degreaser
16. Fuel quantity test switch
17. Fuel quantity indicator
18. Fuel pressure warning light
19. Take-off check list

20. OAT-carburetor air temp. indicator
21. Outside air temperature switch
- 21A. Torque pressure gauge
22. Deleted
- 22A. ID-249/ARN course indicator
23. Generator warning light
24. Accelerometer
25. Engine gauge unit
26. Cylinder head temperature indicator
27. ID-250/ARN course indicator
28. Rate-of-climb indicator
- 28A. Deleted
- 28B. ID-310/ARN range indicator
29. Rudder pedal adjustment crank
- 29A. P-1 autopilot gyro horizon
30. Turn-and-bank indicator
- 30A. Chartboard
31. Altimeter
32. Tachometer
- 32A. Water injection switch
33. Wheels and flaps position indicator
34. Ignition switch
35. Dive check list



A-1J (AD-7) (142074) of VA-145, returning from patrol prepares to land aboard USS Constellation. The 'Swordsmen' pulled combat duty in Vietnam. 20 June 1963. (USN via Bill Curry)



AD-7 (142015) of VA-122, a training squadron based at NAS Lemoore, CA., shows the underlying rack detail to good advantage. 1960. (USN via Bill Curry)

A-1J (AD-7) (142076) of 1st Special Operations Squadron (SOS) 56th Special Operations Wing (SOW). Note the deletion of the national insignia. This fully-loaded Skyraider is seen near Laos. C. 1966. (via Don Jay)





## A2D-1 Skyshark

Under the designation A2D-1 Skyshark, the AD-3 airframe was mated to an Allison T-40 turboprop engine turning two massive Aeroproducts contra-rotating propellers. The T-40 was essentially two side-by-side turbojet engines mounted through gearing to the propeller shafts. Additional power was developed from the engines' jet thrust vented through exhaust ports on each side of the fuselage just behind the wing root. To conserve fuel during flight, one of the two engines could be shut down. The Skyshark was equipped with an ejection seat for pilot escape. Six examples were built and tested, but difficulties in engine development, reduction gearing and the counter-rotating props caused the projects termination.



A2D-1 (125482) at the Naval Air Test Center at Patuxent River, MD. This Skyshark was stricken from the Navy inventory in February 1954. (via Pete Bowers)

EA-1E (AD-5W) (133772) of Navy VAW-11 Anti-Submarine Unit, off USS Kearsarge (CV-33), in the colors worn during deployment, April 1964.



A-1J (AD-7), (142058) *Rita*, flown by the Commander of the 56th Special Operations Wing, Nakhon Phanom, Thailand, November 1970.

